

Georgia State Partnership for Food and Language Nutrition

Health Disparities Profiles

DeKalb County and the City of Clarkston

Whitfield County and the City of Dalton

Lowndes County and the City of Valdosta



Please email your comments on this draft to: Audrey.Idaikkadar@dph.ga.gov

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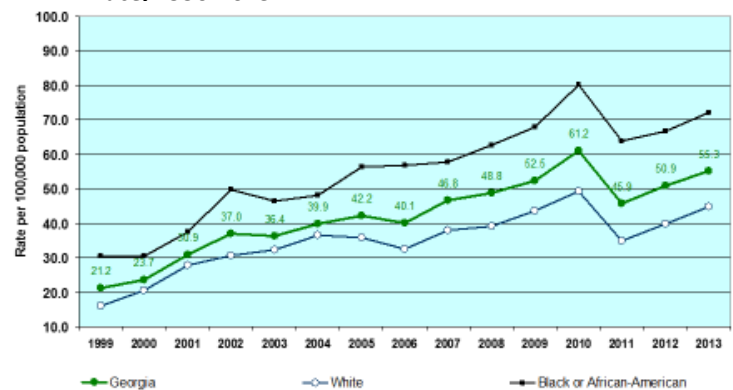
Introduction

What are Health Disparities?

Health disparities are preventable differences in health outcomes based on race, ethnicity, disability, sex, geography, sexual identity, and socioeconomic status. Race and minority health disparities result from social factors that generate inequalities among the different racial and ethnic groups. These factors include poverty, education, unemployment, healthcare access, transportation, discrimination, safe and affordable housing and racism.

In Georgia, although racial and ethnic minorities account for one-third of the population, their disease burden is significantly higher, with health disparities recorded in diabetes, cardiovascular disease, cancer, kidney disease, stroke and HIV/AIDS health outcomes. Figure 1 captures an example of health disparities in Georgia. The age-specific rate of obesity/overweight-related hospitalizations from 2-19 years old is markedly higher for Black or African Americans when compared to White Americans. While rates have increased for both groups, the rate for Black or African Americans remains higher.

Figure 1: Age-specific rate of obesity/overweight-related hospitalizations, 2-19 years of age, Georgia, by race, 1990-2013



Definition: Obesity/Overweight-related hospitalization is defined as the hospital discharge where any one of the codes listed below was present in either the primary or other contributing cause.
ICD-9 Codes: 278.0, 278.0[1-2], 278.1, 278.6, V85.2[1-5], V85.3[3-5], V85.4[1-5], V85.5[3-4]

Source: Georgia Department of Public Health, Office of Health Indicators for Planning (OHIP).



Source: Georgia Department of Public Health, Office of Health Indicators for Planning (OHIP), 2014.

What is the purpose of this Health Disparities Profile?

Understanding and tracking health disparities is the first step in working towards reducing and eliminating health disparities, and working towards achieving health equity. The Office of Minority Health's National Partnership for Action serves as a framework to end health disparities. Their goals include increasing awareness of the significance and the impact of health disparities and improving data availability and utilization.

This profile provides measures that will enable the Georgia Department of Public Health to understand the state of specific health disparities in priority communities and to demonstrate the impact and progress of its integrated Food and Language Nutrition Project over time. With five years of funding from Office of Minority Health (OMH), Georgia Department of Public Health, through an innovative model, aims to support prevention and population health in communities with significant racial and ethnic populations that suffer from high rates of chronic disease, poor health and academic outcomes. The model builds on existing initiatives in early childhood brain development, Brain Trust for Babies and Talk with Me Baby, as well as Georgia Shape, the Governor's initiative to prevent childhood obesity, and the Growing Fit approach to influencing early care settings around nutrition and physical activity.

The model is designed to promote language nutrition in combination with evidence-based messages on healthy behaviors and food nutrition, supporting brain development and language acquisition in the age 0-5 population in three priority Georgian communities:

1. DeKalb County and the City of Clarkston
2. Whitfield County and the City of Dalton
3. Lowndes County and the City of Valdosta

These communities were chosen because the high percentage of the population that speaks a language other than English in the home (Clarkston and Dalton) and/or the high percentage of racial and ethnic minorities (all three communities).

This profile uses the Nutrition, Physical Activity and Obesity and Social Determinants Health Healthy People 2020 Leading Health Topics and the corresponding Leading Health Indicators Fruit and Vegetable Consumption and High School Graduation to measure baseline.

Georgia will use these two indicators to understand the priority communities' challenges and strengths and track project's progress and impact in the communities. This profile contributes towards OMH's National Partnership for Action's Goals of increasing awareness of the impact of health disparities in fruit and vegetable consumption and high school graduation rates and improving on the availability of these data in the priority communities.

How do you use the profile?

Each priority community has an At-A-Glance page that contains summary data on demographics and the LHIs. These pages give the reader a quick overview of each of the community's diversity, economic vulnerability and current status of LHIs.

There are also In-Depth pages for each priority community that includes background information on the cities and more data to fully illustrate where the communities are at baseline for the two LHIs. The In-Depth section provides analysis on the significance of the data as well as the expected results and outcomes from this project. City level data is provided when available, otherwise county level data is provided.

At A Glance Pages

These pages include city-level and county level demographic data on residents and their economic vulnerability. These pages also summarize the baseline measures for the two leading health indicators. Proxy data for fruit and vegetable intake for persons aged 2 years and older has to be used because of the absence of reliable small area estimates.

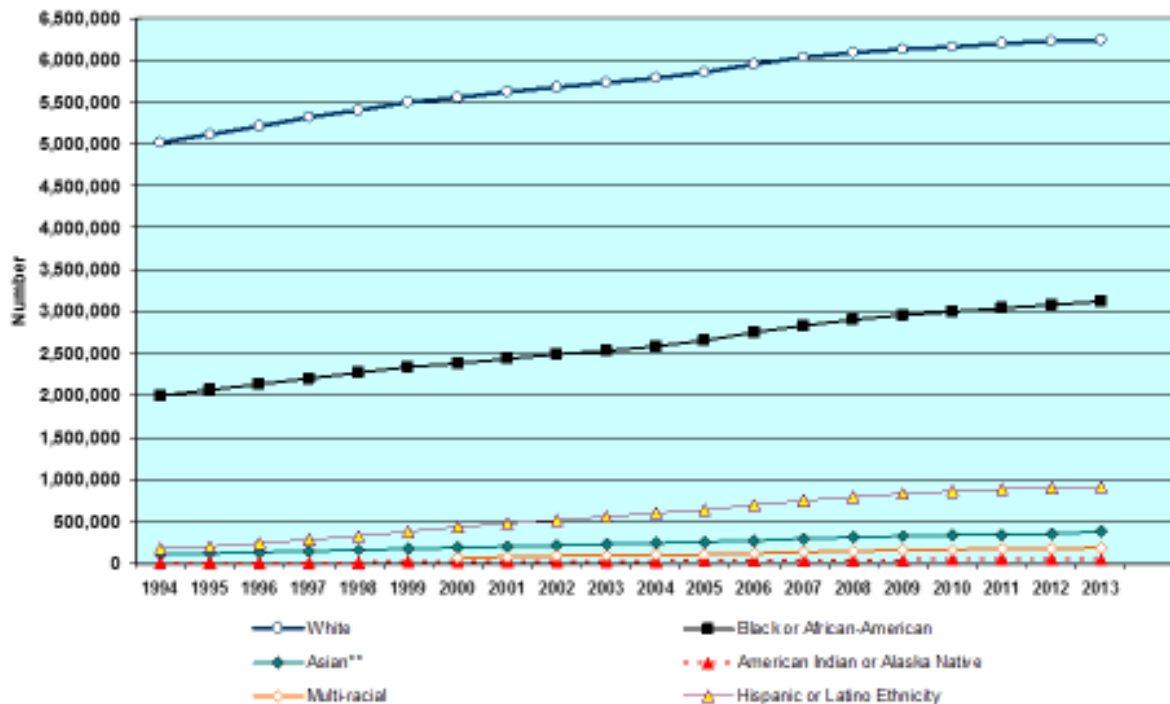
In-Depth Pages

These pages include more background information on the priority communities' histories and percentage of foreign born. This section details the meaning of the measures for the leading health indicators as well as the expected outcomes from the project. Other baseline measures are included to further illustrate the baseline of the communities for the leading health topics.

An Overview of Georgia's Diversity

Georgia consists of 159 counties and more than ten million people (a more than 5 percent increase from 2010) (US Census Bureau, Population Estimate Program, 2014). Since 1994, Georgia's total population has increased, as has each race group and Hispanic ethnicity. Figure 2 shows the growth of Georgia's population by race and ethnicity.

Figure 2: Population by race, and Hispanic or Latino ethnicity*, Georgia, 1994-2013



*Hispanic can be of any race.

** Asian includes Native Hawaiian or Other Pacific Islander to be comparable across all years.

Source: U.S. Census data as found in Online Analytical Statistical Information System (OASIS) Georgia Department of Public Health, Office of Health Indicators for Planning (OHIP).
<http://oasis.state.ga.us/>



Table 1: Percent by race and ethnicity in 2014 in the United States and Georgia

	U.S.	Georgia
White	77.4%	62.1%
Black or African-American	13.2%	31.5%
Asian	5.4%	3.8%
American Indian or Alaska Native	1.2%	0.1%
Multi-racial	2.5%	2.0%
Hispanic (Hispanic can be of any race)	17.4%	9.3%.

Source: US Census Bureau, Population Estimate Program, 2014.

Table 1 shows that the African-American population in Georgia is higher than in the United States (31.5% percent versus 13.2% respectively). According to the 2010 Census, Georgia is the fourth state with largest black alone-or-in-combination populations at 3.1 million. This population also grew by 28% since 2010 (U.S. Census Bureau, Census Briefs: The Black Population, 2010).

While the percent of Hispanics and Asians in Georgia is lower than the percent in the United States as a whole, Hispanics and Asians make up more than one in ten Georgians. Both populations have seen tremendous growth over the years. The Hispanic share of Georgia's population grew from 1.7% in 1990, 9 to 5.3% in 2000, 10 to 9.1% (or 907,400) in 2013. The Asian share of the population grew from 1.1% in 1990, to 2.1% in 2000, to 3.5% (or 354,384) in 2013, according to the U.S. Census Bureau (American Immigration Council, 2015).

Nearly one in ten Georgians are also foreign born and more than one third are naturalized citizens (American Immigration Council, 2015). Table 2 shows the percent of the population in Georgia that is foreign born and Table 3 shows the regions of birth for foreign born residents. More than half of foreign born in Georgia are from the Americas, including Latin America.

Table 2: US and foreign born in Georgia, 2014

NATION OF BIRTH	PERCENT
US BORN	89.1%
FOREIGN BORN	9.9%

Table 3: Regions of birth for Georgia residents, 2014

REGIONS OF BIRTH	PERCENT
EUROPE	9.0%
ASIA	28.1%
AFRICA	9.0%
OCEANIA	0.4%
AMERICAS	53.5%

Source: U.S. Census Bureau's American Community Survey, 2014.

In considering the foreign born population of Georgia, it is also important to consider the number of potentially linguistically isolated households are in the state. Table 4 shows the number of children in linguistically isolated households.

Table 4: Children in linguistically isolated households (number) by non-English home language

	SPANISH	ASIAN/PACIFIC ISLAND LANGUAGES	OTHER NON-ENGLISH LANGUAGES
GEORGIA	54,153	10,362	5,890

Source: U.S. Census Bureau, American Community Survey, 2008-2012.

Racial/ethnic minorities, foreign born individuals, and linguistically isolated families make up a significant amount of Georgia's population. Working towards reducing and eliminating health disparities for these groups will significantly improve the health status of the state.

Healthy People 2020 and Leading Health Indicators

Healthy People is a set of science based goals and objectives with 10 year targets used to guide national health promotion and disease prevention to improve the health of all Americans. Healthy People goals are released by the U.S. Department of Health and Human Services each decade and Healthy People 2020 are the goals for the year 2020.

Georgia's project aims to address two Leading Health Topics: Nutrition, Physical Activity and Obesity and the Social Determinants of Health. For these two Leading Health Topics, this project uses fruit and vegetable consumption and high school graduation to establish a baseline for the communities and to track the project's progress.

Table 5: Leading health topics and indicators

Leading Health Topic	Leading Health Indicator	Georgia's LHI
Nutrition, Physical Activity and Obesity	PA-2.4 Adults meeting physical activity and muscle-strengthening Federal guidelines (age adjusted, percent, 18+ years)	
	NWS-9 Obesity among adults (age adjusted, percent, 20+ years)	
	NWS-10.4 Obesity among children and adolescents (percent, 2–19 years)	
	NWS-15.1 Mean daily intake of total vegetables (age adjusted, cup equivalents per 1,000 calories, 2+ years)	✓
Social Determinants of Health	AH-5.1 Students awarded a high school diploma 4 years after starting 9th grade (percent)	✓

According to Healthy People 2020, good nutrition, physical activity, and a healthy body weight decrease a person's risk of developing serious health conditions, from high blood pressure to obesity to cancer. Most Americans and Georgians do not eat a healthful diet and are not physically active at levels needed to maintain proper health. As a result, the Nation and Georgia have experienced a dramatic increase in obesity. In 2014, the prevalence of obesity for adults in Georgia was 30.5% (Georgia Department of Public Health, 2014.). Obesity-related conditions include heart disease, stroke, and type 2 diabetes, which are among the leading causes of death. In order to reduce this prevalence, Georgia aims to increase the mean daily intake of total vegetable in 2+ years as shown in Table 5.

The Social Determinant of Health Leading Health Topic has only one associated LHI: on time high school graduation rates. But the concept of social determinants extends beyond just high school graduation and recognizes the role of home, school, workplace, neighborhood, and community in improving health. Social determinants are in part responsible for health disparities, or the unequal and avoidable differences in health status within and between communities. Georgia aims to impact the rate of high school graduation.

Georgia's Targeted Leading Health Indicators

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Fruit and Vegetable Consumption

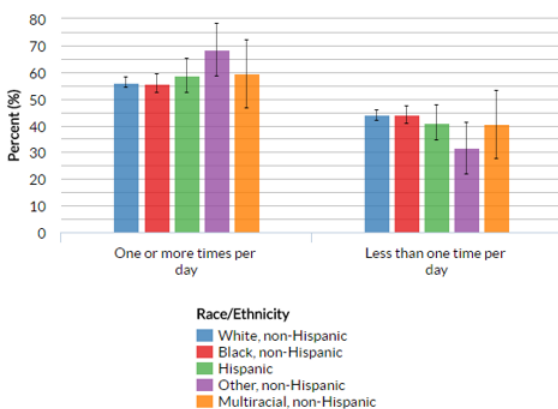
The Healthy People 2020 Leading Health Indicator is the contribution of total vegetables to the diets of the population aged 2 years. The table below outlines the baseline and measures target measures for this indicator for the nation as a whole.

Table 6: Healthy People 2020 vegetable consumption baseline and target measures

HP2020 Baseline	In 2005–08, 0.76 cup equivalents of total vegetables per 1,000 calories was the mean daily intake by persons aged 2 years and over (age adjusted).
HP2020 Target	1.16 cup equivalents per 1,000 calories (age adjusted), or the 90th percentile of usual vegetable intake at baseline.
Most Recent	In 2009–12, 0.77 cup equivalents of total vegetables per 1,000 calories was the mean daily intake by persons aged 2 years and over (age adjusted)

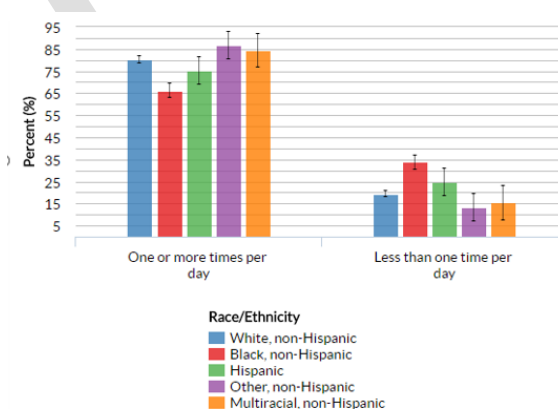
While this project focuses on the priority communities, this profile includes information on status of fruit and vegetable consumption for the whole state of Georgia to supplement the local health indicators detailed later in this profile. Figures 3 and 4 below show that for 2013, a higher percent of Whites and Blacks consumed less than one fruit a day as compared to Hispanics, other races, and Multi-Racial adults; and for vegetable consumption, a higher percent of Blacks and Hispanics consumed less than one vegetable per day compared to Whites, other races and Multi-Racial adults.

Figure 3: Adults who consumed fruits less than one time per day by race and ethnicity in Georgia, 2013



Data Source: Behavioral Risk Factor Surveillance System (BRFSS)

Figure 4: Adults who consumed vegetables less than one time per day by race and ethnicity in Georgia, 2013



Data Source: Behavioral Risk Factor Surveillance System (BRFSS)

For the priority communities, proxy data for fruit and vegetable intake for persons aged 2 years and older has been used because of the absence of reliable small area estimates. The proxy data includes the percent of adults with inadequate fruit and vegetable consumption, the percent of third graders in the Healthy Fitness Zone for Body Mass Index (BMI), and a place holder for baseline data that will be collected at community listening sessions: the number of days in a week that children were served meals with fruits and vegetables.

High School Graduation

The Healthy People 2020 Leading Health Indicator is the on-time graduation rate for high school students. Table 7 below outlines the baseline and measures target measures for this indicator for the nation as a whole.

Table 7: Healthy People 2020 high school graduation baseline and target measures

HP2020 Baseline	In the 2010–11 school year, 79% of students attending public schools graduated with a regular diploma 4 years after starting 9th grade.
HP2020 Target	87%, a 10% improvement over the baseline, which was established for the 2010–11 school year.
Most Recent	On-time graduation estimates have increased from 79% in the 2010–11 school year to 81% in the 2012–13 school year.

While this project focuses on the priority communities, this profile includes information on status of high school graduation for the whole state of Georgia to supplement the local health indicators detailed later in this profile.

Table 8: Public high school 4-year adjusted cohort graduation rate (ACGR), by race/ethnicity and selected demographics for the United States and Georgia: School year 2012–13

Region	Total	American Indian/ Alaskan Native	Asian/ Pacific Islander	Hispanic	Black/ African American	White	Limited English proficiency
US	81.4%	69.7	88.7%	75.2%	70.7%	86.7%	61.9%
Georgia	71.7%	64%	81.8%	62.6%	64.4%	79.2%	43.8%

Source: U.S. Department of Education, 2015.

Table 8 shows that Georgia's 4-year adjusted cohort graduation rate in 2012-2013 for all students (71.7%) is far below what HP2020's baseline was in 2010-2011 (79%) and the rate for 2012-2013 school year for the whole United States at 81.4%. Aside from Asian/Pacific Islanders and Whites, all other subgroups fall below total graduation rate for the state. The lowest graduation rate was for the limited English proficiency subgroup at 43.8%.

In Georgia, people who do not complete high school are six times more likely to report poor health compared to their college graduate counterparts. Also, 14.3% of people who did not complete high school compared to 11.8% of their counterparts who completed HS report a diagnosis of diabetes (CDC, BRFSS Prevalence & Trends Data, 2015).

While the one LHI for Social Determinants of Health is High School Graduation, school readiness at the age of three and reading proficiency by the end of third grade are powerful predictors of subsequent academic success as well as health and economic outcomes. In Georgia, only 34% of fourth grade students scored at or above the proficient level, and only 23% of students from low-income families scored at or above the proficient level (U.S. Department of Education, 2015). This profile also includes end of grade assessment data for third graders in reading proficiency in priority communities in order to track social determinants of health.

Priority Communities

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DeKalb County and the City of Clarkston

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At A Glance: DeKalb County and the City of Clarkston

City of Clarkston Demographics:

7,846 residents*

13.6% White/58.4% Black/21.6% Asian /0.4% American Indian or Alaskan Native /4.1% Multiracial **

2.8% Hispanic or Latino**

43.9% under Federal Poverty Level*

63% of the population 25 years and over have a high school degree*

9.7% or 761 are under 5 years old**

Sources: * U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates; U.S. Census Bureau, American Community Survey, 2010. Note: This geographic level of poverty is not comparable to other geographic levels of these estimates.

Specific Data for DeKalb County (not available for the City of Clarkston):

Children 0-4 years old: 33.53% White/51.05% Black/5.95% Asian/0.41% American Indian or Alaska Native/ 0.07% Native Hawaiian or Other Pacific Islander/ 4.08% Multiracial/ 4.91% Some Other Race***

13.35% of children from 0 to 4 years old are Hispanic or Latino***

29.8% of children under 18 under Federal Poverty Level*

Sources: * U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates; *** US Census Bureau, American Community Survey, 2010-14. Source geography: Tract

Leading Health Indicator 1: Fruit and Vegetable Consumption (Nutrition, Physical Activity, and Obesity)

Percent Adults with Inadequate Fruit / Vegetable Consumption

Region	
U.S.	75.7%
Georgia	75.7%
DeKalb County	70.9%

2015-2016 School Year: Percent of 3rd Graders in the Healthy Fitness Zone for Body Mass Index

Region	Boys	Girls
Georgia	66.67%	63.87%
DeKalb County	67.89%	65.68%
City of Clarkston	69.05%	70.74%

Placeholder Baseline Data from Survey:

Q3. In the last 7 days, number of days that children 0-5 were served meals that include fruits and vegetables.

Note: *This indicator is compared with the state average.

Sources: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services. Health Indicators Warehouse. 2005-09. Source geography: County: Georgia Department of Education. 2016

Leading Health Indicator 2: High School Graduation Rates (Social Determinants of Health)

2015 Four-Year graduation rate by race, ethnicity, and English-learner status

Region	Overall	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic	Black or African American	White	Multiracial	English Learners
Georgia	79%	73.6%	88%	72%	75%	80%	No data	56%
DeKalb County	71%	Too few students	65%	58%	71%	85%	77%	47%
City of Clarkston	63%	Too few students	55%	Too few students	71%	Too few students	Too few students	53%

Source: Governor's Office of Student Achievement, 2015

Clarkston is a small city in DeKalb County that is known as a refugee haven and has been described as the, “most diverse square mile in the United States.” In the 1990s, refugee Asylum programs in the United States identified Clarkston as a good fit for displaced persons of many different backgrounds. By the 2000s the local high school had students from more than 50 countries (City of Clarkston, 2012). About 8,000 immigrants pass through the Clarkston Community Center each year and the 15 apartment complexes in the city are often the first stop for refugees seeking resettlement, making Georgia the fourth largest destination for refugees in the United States (Hiskey, 2010).

Table 9: Percent of foreign born persons in DeKalb County and the City of Clarkston

Region	Percent
Georgia	9.7%
DeKalb County	13.1%
City of Clarkston	53.5%

Source: U. S. Census Bureau, American Community Survey, 5-Year Estimates 2010-2014

Table 9 shows that 53.5% of the City of Clarkston is foreign born. Because of the high percentage of foreign born individuals and families in this target community, the project’s interventions explicitly target English Language Learners and Dual Language Learners.

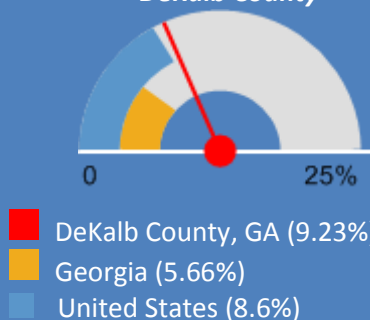
Considering the number of refugees in Clarkston, it is important to examine the percent of the population that has limited English proficiency.

While the percent of the population that has

limited English proficiency is not available for Clarkston, Figure 5 shows that 9.23% of DeKalb County aged 5 and older speak a language other than English at home and speak English less than “very well.” This indicator is relevant because an inability to speak English well creates barriers to healthcare access, provider communications, and health literacy/education.

Foreign born individuals and especially refugees may be particularly economically vulnerable. 43.9% of the City of Clarkston falls underneath the Federal Poverty Level, but this number probably consists of both native and foreign born community members.

Figure 5: Percent Population Age 5+ with Limited English Proficiency in DeKalb County



Source: US Census Bureau, American Community Survey, 2010-14. Source geography: Tract

LHI 1: Fruit and Vegetable Intake (Nutrition, Physical Activity, and Obesity)

The measure selected for this project for the Nutrition, Physical Activity, and Obesity LHI is the total fruit vegetable intake for persons aged 2 years and older. This data is currently only available at the state level through Behavioral Risk Factor Surveillance System (BRFSS) and there are no reliable small area estimates for this data. For this reason, this profile uses three proxy measures for this LHI: the percentage of adults that have inadequate fruit and vegetable consumption, local survey data on the number of days fruits and vegetables were included in meals for children 0-5 years old, and 3rd grade fitness assessment data.

Table 10: Percent Adults with Inadequate Fruit/ Vegetable Consumption in DeKalb County

Region	
U.S.	75.7%
Georgia	75.7%
DeKalb County	70.9%

Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2005-09. Source geography: County
Note: *This indicator is compared with the state average.

In DeKalb County an estimated 393,348, or 70.9% of adults over the age of 18 are consuming less than 5 servings of fruits and vegetables each day. This indicator is relevant because current behaviors are determinants of future health, and because unhealthy eating habits may cause significant health issues, such as obesity and diabetes. It is also relevant because adults with children 0-5 years old who have inadequate fruit and vegetable consumption are less likely to provide adequate fruit and vegetables to their children. The expectation of the project is to increase fruit and vegetable intake for age two years and older.

The baseline for fruit and vegetable consumption for

children 0-5 years will be from survey data that will be collected at the community listening sessions. Clarkston community members will be asked how many days per week children consume fruits and vegetables, serving as a good proxy for this LHI. As the project moves forward, the expectation is that children will be served meals with fruits and vegetables more days a week.

Beginning in the 2011-2012 school year, Georgia students have participated in the fitness assessments that have included measures of Body Mass Index (BMI) once a year. Students are assessed to whether they fall in the Healthy Fitness Zone, meaning they are at healthy BMI, neither overweight nor underweight. Data from the 2015-2016 school year shows that in

Figure 6: Baseline fruit and vegetable data to be collected from survey for Clarkston

Q3. In the last 7 days, number of days that children 0-5 were served meals that include fruits and vegetables.

Table 11:
Percent of 3rd graders in the Healthy Fitness Zone for Body Mass Index in DeKalb County and the City of Clarkston, 2015-2016 School Year

Region	Boys	Girls
Georgia	66.67%	63.87%
DeKalb County	67.89%	65.68%
City of Clarkston	69.05%	70.74%

Source: Georgia Department of Education, 2016

City of Clarkston, 69.05% of third grade boys and 70.4% of third grade girls are in the Healthy Fitness Zone, neither overweight nor underweight. One of the long term outcomes of this project is to decrease childhood obesity and thereby increase the percentage of third graders in the Healthy Fitness Zone.

Other Baseline Measures

Other baseline measures included will further illustrate Nutrition, Physical Activity and Obesity Leading Health Topic. These measures are the percent of population that live in food deserts and the percent population with no leisure time physical activity.

Table 12 shows the percentage of the population living in census tracts designated as food deserts in DeKalb County. A food desert is defined as a low-income census tract where a substantial number or share of residents has low access to a supermarket or large grocery store. This indicator is relevant because it highlights populations and geographies facing food insecurity. In DeKalb County, 25.05% of the population or 173,323 live in a food desert. There is strong evidence that residing in a food desert is correlated with a high prevalence of overweight, obesity, and premature death (Ahern et. al, 2009). There are also consistent findings that people living in low-income neighborhoods, minority neighborhoods, and rural communities face much greater challenges finding healthy food, especially those who lack good transportation options to reach full-service grocery stores (Policy Link, 2010).

Table 12: Percent of the population living in census tracts designated as food deserts in DeKalb County

Region	Percent
US	23.61%
Georgia	31.49%
DeKalb County	25.05%

Data Source: US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas. 2010. Source geography: Tract

Note: This indicator is compared with the state average.

The logic in including this measure as proxy data is that access to healthy foods like fruit and vegetables are a necessary predecessor to consuming fruits and vegetables. One of the project's long term outcomes is to increase the availability of fruits and vegetables in priority communities and thereby decrease the percent of the population with low access to food. This project's activities include facilitating partnerships between local Clarkston organizations to increase access to healthy food to support children's physical development, as well as access to books to support children's brain development. While the intervention does not aim to build supermarkets or grocery stores, it does aim to help families with children 0-5 years' access healthy food. These activities will be reported in subsequent health profiles.

Physical activity data further illustrates Clarkston, DeKalb baseline measures for Nutrition, Physical Activity and Obesity. The project aims to increase the amount of developmentally appropriate physical activity of children 0-5 years. Figure 6 shows that the current measure for this indicator is that 21.4% of DeKalb County's adults, or 109,900, do not have leisure time for physical activity. The measure is for adults but the underlying assumption is that increasing the amount of physical activity for adults with children 0-5 years will also improve the amount for these children. The expectation of the project is to increase the amount of physical activity for children 0-5 years through improved access and increased activity. It is also expected that the percentage of adults reporting no leisure time physical activity will decrease.

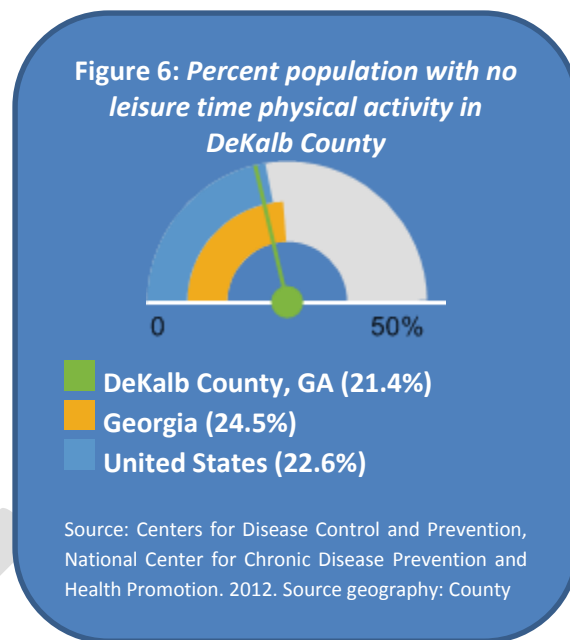
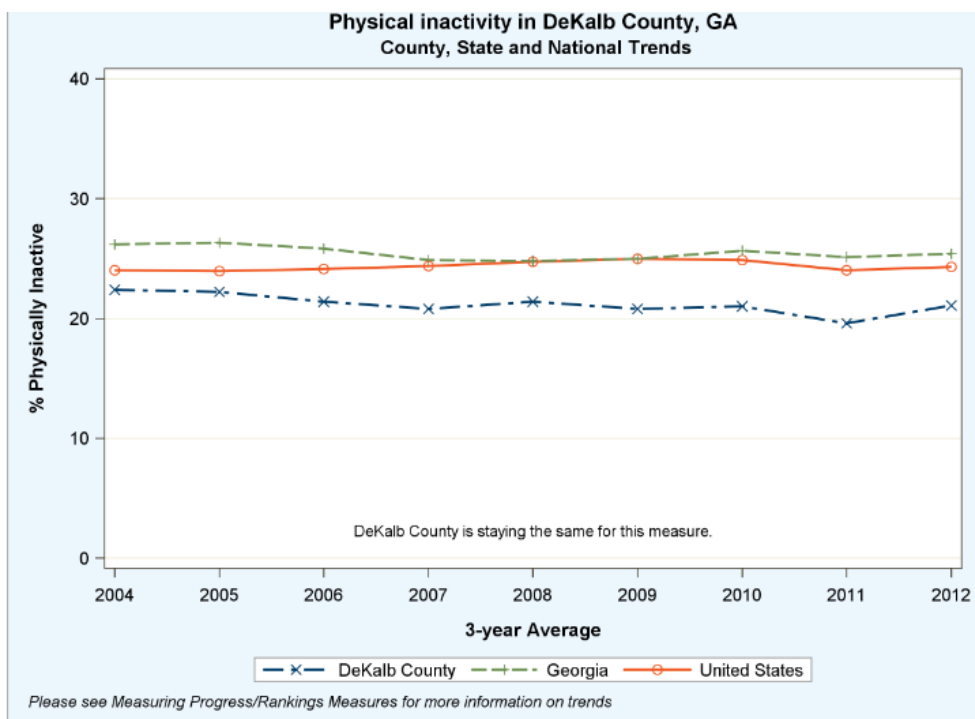


Figure 7 presents the three-year average for DeKalb county and shows that the county has been staying the same for this measure for this period of time. The expectation is that over time the measure will improve.

Figure 7: Three-year averages for physical inactivity in DeKalb County, GA



Source: Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data, 2012.

Priority Community Surveys

The following survey data on access to fruit and vegetable, access to spaces for physical activity, and the amount of structured (led by an adult) and unstructured (free play physical activity) will also be collected from Clarkston community members and included in updates to this profile.

Figure 8: Baseline nutrition and physical activity data to be collected from survey of Clarkston

Q2. In my neighborhood, it is easy to buy fresh fruits and vegetables.

Q4. Do children 0-5 years in your care have access to indoor and outdoor areas that are safe for physical activity?

Q5. Over the past 7 days, how many days did the children 0-5 years in your care participate in physical exercises led by an adult?

Q6. Over the past 7 days, how many days did the children 0-5 years in your care participate in physical exercises not led by an adult?

LHI 2: High School Graduation (Social Determinants of Health)

The measure selected for this project for this LHI are students who graduate with a regular diploma 4 years after starting 9th grade. The baseline for Healthy People 2020 for the US was measured in the 2010–2011 school year at 79% of students attending public schools graduated with a regular diploma. The target for 2020 is 87%. In the 2014-2015 school year Clarkston had a 63% graduation rate and when broken down by race and ethnicity Asian/Pacific Islander students had an even lower graduation rate at 55%. While Black students had a higher graduate rate comparatively, it was still below the national graduation rate at 71%.

Considering the high number of foreign born individuals in Clarkston, this project was designed to reach out to English Language Learners (ELL) and Dual Language Learners (DLL). The graduation rate for ELLs are at 53% for the City of Clarkston, the lowest rate for any of the reported subgroups.

In the long term, this project aims to increase high school graduation rates. The children impacted by this that project are currently 0-5 years old and will probably not graduate high school before 2028 so the updates in this profile will not show the impact of the project within the next five years.

Table 13: Four-Year graduation rate by race, ethnicity, and English-learners' status in DeKalb County and City of Clarkston, 2015

Region	Overall	American Indian/ Alaskan Native	Asian/ Pacific Islander	Hispanic	Black/ African American	White	Multiracial	English Learners
Georgia	79%	73.6%	88%	72%	75%	80%	No data	56%
DeKalb County	71%	Too few students	65%	58%	71%	85%	77%	47%
City of Clarkston	63%	Too few students	55%	Too few students	71%	Too few students	Too few students	53%

Source: Governor's Office of Student Achievement, 2015

Note: Too few students – any data for less than 10 students are not reported.

Other Baseline Measures

Because the children directly impacted by this project will not graduate until 2028, other data is required to understand the City of Clarkston's baseline measures for the Social Determinants of Health and to track the impact of this project in the community.

This project supports early brain development and language acquisition through language nutrition, frequently talking with babies and practicing “serve and return.” There is increasing evidence that language nutrition contributes to children achieving reading proficiency at third grade which then contributes to students graduating high school.

Students in Georgia take end-of-grade assessments from the third to eighth grade, including an assessment in English Language Arts (ELA). ELA assessments include reading, writing, speaking and listening, and language. ELA assessments can help measure whether students are reading proficiently at grade level. The achievement levels for the assessments are: Beginning Learners, Developing Learners, Proficient Learners, and Distinguished Learners. Beginning and Developing Learners have not demonstrated or have partially demonstrated proficiency in the knowledge and skills for their grade level and will need further academic support in the next grade level and to be on track for college and career readiness. Proficient and Distinguished Learners have demonstrated proficiency at the knowledge and skills for their level of course, are prepared for next grade level, and are on track for college and career readiness.

The following data shows the percentage of third graders in the 2014-2015 school year that are Proficient and Distinguished Learners for the ELA exam, and therefore are reading proficiently. For all students and almost all subgroups, a higher percentage of Georgia students and of DeKalb student score as Proficient and Distinguished Learners as compared to the two elementary schools in the City of Clarkston. This project aims to increase the percentage of students that are proficient at 3rd grade reading level and will be assessed as proficient in the ELA exam. This project expects to increase the number of students who are assessed as proficient and distinguished learners.

Table 14: Proficient and distinguished learners for the 3rd grade English Language Arts by race, ethnicity and English proficiency in DeKalb County and City of Clarkston, 2014-2015 school year

	Georgia	DeKalb County	Clarkston City School 1	Clarkston City School 2
All Students	36.92%	29.34%	15.60%	14.18%
American Indian/Alaskan Native*	40.25%	70.00%		
Asian	67.28%	43.09%	12.64%	16.00%
Black or African American	24.25%	22.77%	21.95%	10.96%
Native Hawaiian or Other Pacific Islander*	40.02%	36.84%		
White*	50.09%	69.08%		
Multiracial*	42.63%	46.67%		
Hispanic*	29.23%	19.93%		
Limited English Proficient	16.39%	16.06%	15.00%	12.99%
Not Limited English Proficient	39.76%	32.64%	19.05%	15.79%

Source: Governor's Office of Student Achievement, 2015

Note: *no data available

Priority Community Surveys

The following survey data on access to books, languages spoken to children 0-5 and the activities of the day which include conversation to children will also be collected from Clarkston community members and included in updates to this profile.

Figure 9: *Baseline social determinants of health data to be collected from survey of Clarkston*

Q7. In your neighborhood, are there places that you can access books for children 0-5 years?

Q8. Do you speak language other than (or in addition to) English to children in your care?

Q9. At what activities of the day do you engage children in a conversation?

Whitfield County and the City of Dalton

DRAFT

At A Glance: Whitfield County and the City of Dalton

Dalton, Whitfield County:

33,529 residents*

65% White/6.4% Black/1.7% Asian /0.6% American Indian or Alaskan Native/3.2% Multiracial**

48.0% Hispanic or Latino**

26.8% under Federal Poverty Level*

63.7% of the population 25 years and over have a high school degree*

9.1% or 3.051 are under 5 years old**

Sources: * U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates; **U.S. Census Bureau, American Community Survey, 2010. Note: This geographic level of poverty is not comparable to other geographic levels of these estimates

Youth Specific Data for Whitfield County (not available for the City of Dalton):

Children 0-4 years old: 82.2% White/3.93% Black/1.62% Asian/0.31% American Indian or Alaska Native/ 0% Native Hawaiian or Other Pacific Islander no data/5.42% Multiracial%/ 6.52% Some Other Race***

11.65% of children from 0 to 4 years old are Hispanic or Latino***

28.3% of children under 18 under Federal Poverty Level*

Sources: * U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates; *** US Census Bureau, American Community Survey, 2010-14. Source geography: Tract

Leading Health Indicator 1: Fruit and Vegetable Consumption (Nutrition, PA, and Obesity)

Percent Adults with Inadequate Fruit / Vegetable Consumption

Region	
U.S.	75.7%
Georgia*	75.7%
Whitfield County	79.3%

Percent of 3rd Graders in the Healthy Fitness Zone for Body Mass Index 2015-2016

Region	Boys	Girls
Georgia	66.67%	63.87%
Whitfield County	75.00%	80.77%
City of Dalton	57.41%	64.81%

Placeholder Baseline Data from Survey:

Q3. In the last 7 days, number of days that children 0-5 were served meals that include fruits and vegetables.

Sources: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2005-09. Source geography: County; Georgia Department of Education, 2016.

Note: *This indicator is compared with the state average.

Leading Health Indicator 2: High School Graduation (Social Determinants of Health)

2015 Four-Year Graduation Rate by race, ethnicity, and English-learners status

Region	Overall	American Indian/ Alaskan Native	Asian/ Pacific Islander	Hispanic	Black/ African American	White	Multiracial	English Learners
Georgia	79%	73.6%	88%	72%	75%	80%	No data	56%
Whitfield County	75%	Too Few Students	Too Few Students	81%	67%	72%	77%	63%
City of Dalton	81%	Too Few Students	Too Few Students	81%	62%	85%	Too Few Students	66%

Source: Governor's Office of Student Achievement, 2015

In-Depth: Whitfield County and the City of Dalton

Dalton is a city in Whitfield County that was known as the Carpet Capital of the World. The 1996 Olympics helped create an informal family network across Georgia state that helped escalate Hispanic and Latino immigration in the late 1990s and the 2000s (Olsson, 2009). Because of the needs of the carpet industry, Dalton and Whitfield County attracted many of the Hispanic and Latino migrants and by the year 2000 Whitfield County had the highest percentage of Hispanics and Latinos in the state (Olsson, 2009). There is a whole generation of young people, the children of Hispanic and Latinos from the early wave of migration, that have grown up in Dalton. In response to the influx of migrant workers and their families, organizations were formed to provide services and support the changing Dalton community (CNN, 2011).

Table 15: Percent of foreign born persons in Whitfield County and City of Dalton

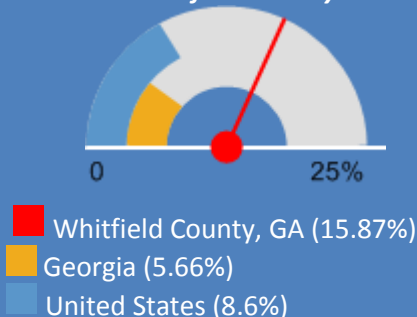
Region	Percent
Georgia	9.7%
Whitfield County	18.4%
City of Dalton	27.7%

Source: U. S. Census Bureau, American Community Survey, 5-Year Estimates 2010-2014

According to the last five-year estimate from the U.S. Census Bureau, 27.7% of the City of Dalton is foreign born. Because of the high percentage of foreign born individuals and families in this target community, the project interventions explicitly target English Language Learners and Dual Language Learners.

Considering the number of foreign born in Dalton, it is important to examine the percent of the population that has limited English proficiency. Households in which no one is able to communicate in English may face barriers in accessing medical and social resources. While the percent of the population has limited English proficiency is not available for Dalton, 15.87% of Whitfield County aged 5 and older speak a language other than English at home and speak English less than "very well." This indicator is relevant because an inability to speak English well creates barriers to healthcare access, provider communications, and health literacy/education.

Figure 10: Percent population age 5+ with limited English proficiency in Whitfield County



Source: US Census Bureau, American Community

Foreign born and linguistically isolated individuals may be particularly economically vulnerable. 26.8% of the City of Dalton falls underneath the Federal Poverty Level, but this number probably consists of both native and foreign born community members.

LHI 1: Fruit and Vegetable Intake (Nutrition, Physical Activity, and Obesity)

The measure selected for this project for the Nutrition, Physical Activity, and Obesity LHI is the total fruit vegetable intake for persons aged 2 years and older. This data is currently only available at the state level through Behavioral Risk Factor Surveillance System (BRFSS) and there are no reliable small area estimates for this data. For this reason, this profile uses three proxy measures for this LHI: the percentage of adults that have inadequate fruit and vegetable consumption, local survey data on the number of days fruits and vegetables were included in meals for children 0-5 years old, and 3rd grade fitness assessment data.

Table 16: Percent adults with inadequate fruit/vegetable consumption in Whitfield County

Region	
U.S.	75.7%
Georgia*	75.7%
Whitfield County	79.3%

Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2005-09. Source geography: County

Note: *This indicator is compared with the state average.

In Whitfield County, an estimated 51,405 or 79.3% of adults over the age of 18 are consuming less than 5 servings of fruits and vegetables each day. This indicator is relevant because current behaviors are determinants of future health, and because unhealthy eating habits may cause significant health issues, such as obesity and diabetes. It is also relevant because adults with children 0-5 years old who have inadequate fruit and vegetable consumption are less likely to provide adequate fruit and vegetables to their children. The expectation of the project is to increase fruit and vegetable intake for age two years and older.

The baseline for fruit and vegetable consumption for children 0-5 years will be from survey data that will be collected at the community listening sessions. Dalton community members will be asked how many days per week children consume fruits and vegetables, serving as a good proxy for this LHI. As the project moves forward, the expectation is that children will be served meals with fruits and vegetables more days a week.

Figure 11: Baseline fruit and vegetable data to be collected from survey of Dalton

Q3. In the last 7 days, number of days that children 0-5 were served meals that include fruits and vegetables.

Table 17: Percent of 3rd graders in the Healthy Fitness Zone for Body Mass Index in Whitfield County and the City of Dalton, 2015-2016 School Year

Region	Boys	Girls
Georgia	66.67%	63.87%
Whitfield County	75.00%	80.77%
City of Dalton	57.41%	64.81%

Georgia Department of Education, 2016

Beginning in the 2011-2012 school year, Georgia students have participated in the fitness assessments that have included measures of Body Mass Index (BMI) once a year. Students are assessed to whether they fall in the Healthy Fitness Zone, meaning they are at healthy BMI, neither overweight nor underweight. Data from the 2015-2016 school year shows that in

City of Dalton, 57.41% of third grade boys and 64.81% of third grade girls are in the Healthy Fitness Zone, neither overweight nor underweight. One of the long term outcomes of this project is to decrease childhood obesity and thereby increase the percentage of third graders in the Healthy Fitness Zone.

Other Baseline Measures

Other baseline measures included to further illustrate Nutrition, Physical Activity and Obesity in Dalton, Whitfield are the percent of population that live in food deserts and the percent population with no leisure time physical activity.

Table 18 reports the percent of the population living in census tracts designated as food deserts. A food desert is defined as a low-income census tract where a substantial number or share of residents has low access to a supermarket or large grocery store. This indicator is relevant because it highlights populations and geographies facing food insecurity. In Whitfield County, 31.26% of the population or 32,070 live in a food desert. There is strong evidence that residing in a food desert is correlated with a high prevalence of overweight, obesity, and premature death (Ahern et al, 2011). There are also consistent findings that people living in low-income neighborhoods, minority neighborhoods, and rural communities face much greater challenges finding healthy food, especially those who lack good transportation options to reach full-service grocery stores (Policy Link, 2010).

Table 18: Percent of the population living in census tracts designated as food deserts in Whitfield County

Region	Percent
US	23.61%
Georgia	31.49%
Whitfield County	31.26%

Data Source: US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas. 2010. Source geography: Tract

Note: This indicator is compared with the state average.

The logic in including this measure as proxy data is that access to healthy foods like fruit and vegetables are a necessary predecessor to consuming fruits and vegetables. One of the project's long term outcomes is to increase the availability of fruits and vegetables in priority communities and thereby decrease the percent of the population with low access to food. This project's activities include facilitating partnerships between local Dalton organizations to increase access to healthy food to support children's physical development, as well as access to books to support children's brain development. While the intervention does not aim to build supermarkets or grocery stores, it does aim to help families with children 0-5 years' access healthy food. These activities will be reported in subsequent health profiles.

Figure 12: Percent Population with no Leisure Time Physical Activity in Whitfield County



■ **Whitfield County, GA (31.4%)**
■ **Georgia (24.5%)**
■ **United States (22.6%)**

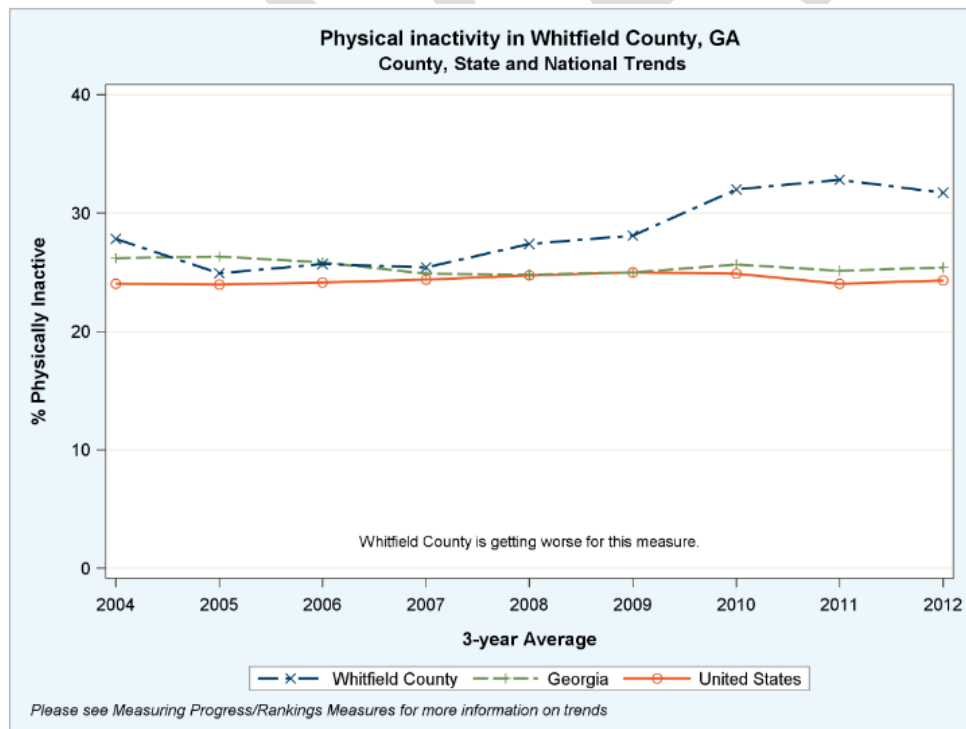
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012. Source geography: County

Physical activity data further illustrates Dalton, Whitfield baseline measures for the Nutrition, Physical Activity and Obesity Leading Health Topic. The project aims to increase the amount of developmentally appropriate physical activity of children 0-5 years. Figure 12 shows that the current measure for this indicator is that 31.4% of Whitfield County's adults, or 22,780, do not have leisure time for physical activity. The measure is for adults but the underlying assumption is that increasing the amount of physical activity for adults with children 0-5 years will also improve the amount for these children. The expectation of the project is to increase the amount of physical activity for children 0-5 years through improved access and increased activity. It is also expected that the percentage of adults reporting no

leisure time physical activity will decrease.

Figure 13 presents the three-year average for Whitfield County shows that the county has been getting worse for this measure for this period of time. The expectation is that over time the measure will improve.

Figure 13: Three-year average for physical inactivity in Whitfield County, GA



Source: Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data, 2012.

Priority Community Surveys

The following survey data on access to fruit and vegetable, access to spaces for physical activity, and the amount of structured (led by an adult) and unstructured (free play physical activity) will also be collected from Dalton community members and included in updates to this profile.

Figure 14: Baseline nutrition and physical activity data to be collected from survey of Clarkston

Q2. In my neighborhood, it is easy to buy fresh fruits and vegetables.

Q4. Do children 0-5 years in your care have access to indoor and outdoor areas that are safe for physical activity?

Q5. Over the past 7 days, how many days did the children 0-5 years in your care participate in physical exercises led by an adult?

Q6. Over the past 7 days, how many days did the children 0-5 years in your care participate in physical exercises not led by an adult?

LHI 2: High School Graduation (Social Determinants of Health)

The measure selected for this project for this LHI are students who graduate with a regular diploma 4 years after starting 9th grade. The baseline for Healthy People 2020 for the US was measured in the 2010–2011 school year at 79% of students attending public schools graduated with a regular diploma. The target for 2020 is 87%. Table 19 shows that in the 2014-2015 school year, Dalton had an 81% graduation rate and when broken down by race and ethnicity, Black students have a 62% graduation rate, the lowest rate for any of the reported subgroups.

Considering the high number of Latino and Hispanic immigrants in Dalton, this project was designed to reach out to English Language Learners (ELL) and Dual Language Learners (DLL). Nationally, ELLs have a rate of graduation rate of 63% compared to 82% overall. The graduation rate for ELLs are at 66% for the City of Dalton.

In the long term, this project aims to increase high school graduation rates. The children impacted by this project are currently 0-5 years old and will probably not graduate high school before 2028 so the updates in this profile will not show the impact of the project within the next five years.

Table 19: Four-Year graduation rate by race, ethnicity, and English-Learners in Whitfield County and City of Dalton, 2015

Region	Overall	American Indian/ Alaskan Native	Asian/ Pacific Islander	Hispanic	Black/ African American	White	Multiracial	English Learners
Georgia	79%	73.6%	88%	72%	75%	80%	No data	56%
Whitfield County**	75%	Too Few Students	Too Few Students	81%	67%	72%	77%	63%
City of Dalton	81%	Too Few Students	Too Few Students	81%	62%	85%	Too Few Students	66%

Source: Governor's Office of Student Achievement, 2015

Notes: *Too few students – any data for less than 10 students are not reported. ** Whitfield County and City of Dalton are two separate school districts.

Other Baseline Measures

Because the children directly impacted by this project will not graduate until 2028, other data is required to understand the City of Dalton's baseline measures for the Social Determinants of Health and to track the impact of this project in the community.

This project supports early brain development and language acquisition through language nutrition, frequently talking with babies and practicing “serve and return.” There is increasing evidence that language nutrition contributes to children achieving reading proficiency at third grade which then contributes to students graduating high school.

Students in Georgia take end-of-grade assessments from the third to eighth grade, including an assessment in English Language Arts (ELA). ELA assessments include reading, writing, speaking and listening, and language. ELA assessments can help measure whether students are reading proficiently at grade level. The achievement levels for the assessments are: Beginning Learners, Developing Learners, Proficient Learners, and Distinguished Learners. Beginning and Developing Learners have not demonstrated or have partially demonstrated proficiency in the knowledge and skills for their grade level and will need further academic support in the next grade level and to be on track for college and career readiness. Proficient and Distinguished Learners have demonstrated proficiency at the knowledge and skills for their level of course, are prepared for next grade level, and are on track for college and career readiness.

Table 20 shows the percentage of third graders in the 2014-2015 school year that are Proficient and Distinguished Learners for the ELA exam, and therefore are reading proficiently. For all students and almost all subgroups, a higher percentage of Georgia students and of Whitfield student score as Proficient and Distinguished Learners as compared to the elementary schools in the City of Dalton. Only 4.76% of Black or African American students and 8.71% of students with limited English were assessed as proficient in ELA the exams. This project aims to increase the percentage of students that are proficient at 3rd grade reading level and will be assessed as proficient in the ELA exam. This project expects to increase the number of students who are assessed as proficient and distinguished learners.

Table 20: Proficient and distinguished learners for the 3rd grade English Language Arts by race, ethnicity and English proficiency in Whitfield County and City of Dalton, 2014-2015 school year

	Georgia	Whitfield County	Dalton City**
All Students	36.92%	27.67%	23.70%
American Indian/Alaskan Native*	40.25%		
Asian*	67.28%		38.46%
Black or African American	24.25%	33.33%	4.76%
Native Hawaiian or Other Pacific Islander*	40.02%		
White	50.09%	31.76%	39.34%
Multiracial	42.63%	22.92%	11.76%
Hispanic	29.23%	22.87%	20.14%
Limited English Proficient	16.39%	18.33%	8.71%
Not Limited English Proficient	39.76%	31.81%	33.33%

Source: Governor's Office of Student Achievement, 2015

Notes: *No data available. ** Dalton City is a distinct district from Whitfield County.

Baseline Data to be collected from Survey

The following survey data on access to books, languages spoken to children 0-5 and the activities of the day which include conversation to children will also be collected from Dalton community members and included in updates to this profile.

Figure 15: *Baseline social determinants of health data to be collected from survey of Dalton*

Q7. In your neighborhood, are there places that you can access books for children 0-5 years?

Q8. Do you speak language other than (or in addition to) English to children in your care?

Q9. At what activities of the day do you engage children in a conversation?

Lowndes County and the City of Valdosta

DRAFT

At A Glance: Lowndes County and the City of Valdosta

Valdosta, Lowndes County:

56,595 residents*

43.3% White/51.1% Black/1.7% Asian /0.3% American Indian or Alaskan Native /1.9% Multiracial **

4.0% Hispanic or Latino**

33% under Federal Poverty Level*

82.8% of the population 25 years and over have a high school degree*

7.7% or 4,357 are under 5 years old**

Sources: * U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates; U.S. Census Bureau, American Community Survey, 2010. Note: This geographic level of poverty is not comparable to other geographic levels of these estimates.

Youth Specific Data for Lowndes County (not available for the City of Valdosta):

Children 0-4 years old: 49.6% White/42.59% Black/0.59% Asian/0% American Indian or Alaska Native/ 0% Native Hawaiian or Other Pacific Islander/ 5.04% Multiracial/ 2.17% Some Other Race***

13.06% of children from 0 to 4 years old are Hispanic or Latino***

31.4% of children under 18 under Federal Poverty Level*

* U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates; *** US Census Bureau, American Community Survey. 2010-14.

Source geography: Tract

Leading Health Indicator 1: Fruit and Vegetable Consumption (Nutrition, PA, and Obesity)

Percent Adults with Inadequate Fruit / Vegetable Consumption

Region	
U.S.	75.7%
Georgia	75.7%
Lowndes County	74.8%

Percent of 3rd graders in the Healthy Fitness Zone for Body Mass Index, 2015-2016 School Year

Region	Boys	Girls
Georgia	66.67%	63.87%
Lowndes County	73.63%	70.27%
City of Valdosta	65.94%	62.11%

Placeholder Baseline Data from Survey:

Q3. In the last 7 days, number of days that children 0-5 were served meals that include fruits and vegetables.

Sources: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2005-09. Source geography: County; Georgia Department of Education, 2016

Note: *This indicator is compared with the state average.

Leading Health Indicator 2: High School Graduation (Social Determinants of Health)

2015 Four-Year Graduation Rate by race, ethnicity, and English-learners' status

Region	Overall	American Indian/ Alaskan Native	Asian/Pacific Islander	Hispanic	Black/ African American	White	Multiracial	English Learners
Georgia	79%	73.6%	88%	72%	75%	80%	No data	56%
Lowndes County	87%	Too Few Students	Too Few Students	88%	81%	89%	83.333	Too Few Students
City of Valdosta	78%	Too Few Students	Too Few Students	Too Few Students	74%	90%	Too Few Students	Too Few Students

Source: Governor's Office of Student Achievement, 2015

In-Depth: Lowndes County and the City of Valdosta

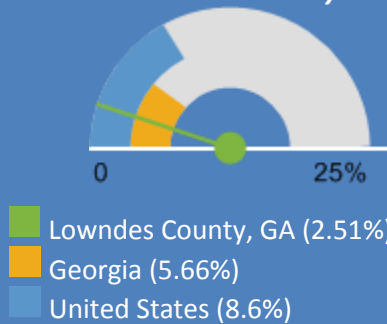
Valdosta is a city in Lowndes County in the South of Georgia near the Georgia Florida border. Valdosta has a higher percentage of Black or African American residents, 51.1%, compared to 31.5% at the state level. All other racial minorities account for less than 6% of the population. Hispanics and Latinos make up 5% of the Valdosta population. The City of Valdosta has a high poverty level with 33% under Federal Poverty Level (U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates). There are an estimated 4,357 children under 5 years old in Valdosta making it the most populous priority community in terms of children 0-5. The Georgia Department of Public Health has made in-roads in the early child education community in Valdosta, providing Growing Fit Trainings to staff to more than 14 ECE centers. The integrative food and language project will build on this prior work and relationships.

Table 21: Percent of foreign born persons in Lowndes County and City of Valdosta

Region	Percent
Georgia	9.7%
Lowndes County	4.4%
City of Valdosta	5.0%

U. S. Census Bureau, American Community Survey, 5-Year Estimates 2010-2014

Figure 16: Percent population age 5+ with limited English proficiency in Lowndes County



Source: US Census Bureau, American Community

In comparison with the two other priority communities (the City of Clarkston in DeKalb and the City of Dalton in Whitfield) that have a substantial number of foreign born residents, Table 21 shows that 5% of Valdosta residents are foreign born persons and Figure 16 shows that 2.51%, or 2,613, are aged 5 and older speak a language other than English at home and speak English less than "very well." The project's interventions that targets English Language Learners and Dual Language Learners will be used to reach the families in this 5% that have the children 0-5.

LHI 1: Fruit and Vegetable Intake (Nutrition, Physical Activity, and Obesity)

One of the Leading Health Indicators for this project is the total fruit vegetable intake for persons aged 2 years and older. This data is currently only available at the state level through Behavioral Risk Factor Surveillance System (BRFSS) and there are no reliable small area estimates for this data. For this reason, this profile uses three proxy measures for this LHI: the percentage of adults that have inadequate fruit and vegetable consumption, local survey data on the number of days fruits and vegetables were included in meals for children 0-5 years old, and 3rd grade fitness assessment data.

Table 22: Percent adults with inadequate fruit/vegetable consumption in Lowndes County

Region	
U.S.	75.7%
Georgia	75.7%
Lowndes County	74.8%

Note: *This indicator is compared with the state average.

Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health & Human Services, Health Indicators Warehouse. 2005-09. Source geography: County

In Lowndes County, an estimated 57,458 or 74.8% of adults over the age of 18 are consuming less than 5 servings of fruits and vegetables each day. This indicator is relevant because current behaviors are determinants of future health, and because unhealthy eating habits may cause significant health issues, such as obesity and diabetes. It is also relevant because adults with children 0-5 years old who have inadequate fruit and vegetable consumption are less likely to provide adequate fruit and vegetables to their children. The expectation of the project is to increase fruit and vegetable intake for age two and older.

Figure 17: Baseline fruit and vegetable data to be collected from survey of Valdosta

Q3. In the last 7 days, number of days that children 0-5 were served meals that include fruits and vegetables

The baseline for fruit and vegetable consumption for children 0-5 years will be from survey data that will be collected at the community listening sessions. Valdosta community members will be asked how many days per week children consume fruits and vegetables, serving as a good proxy for this LHI. As the project moves forward, the expectation is that children will be served meals with fruits and vegetables more days a week.

Table 23: Percent of 3rd graders in the Healthy Fitness Zone for Body Mass Index in Lowndes County and the City of Valdosta, 2015-2016 School Year

Region	Boys	Girls
Georgia	66.67%	63.87%
Lowndes County	73.63%	70.27%
City of Valdosta	65.94%	62.11%

Source: Georgia Department of Education, 2016

Beginning in the 2011-2012 school year, Georgia students have participated in the fitness assessments that have included measures of Body Mass Index (BMI) once a year. Students are assessed to whether they fall in the Healthy Fitness Zone, meaning they are at healthy BMI, neither overweight nor underweight. Data from the 2015-2016 school year shows that in City of Valdosta, 65.94% of third grade boys and 62.11% of third grade girls are in the Healthy Fitness Zone, neither overweight nor underweight.

One of the long term outcomes of this project is to decrease childhood obesity and thereby increase the percentage of third graders in the Healthy Fitness Zone.

Other Baseline Measures

Other baseline measures included to further illustrate Nutrition, Physical Activity and Obesity Leading Health Topic are the percent of population that live in food deserts and the percent population with no leisure time physical activity.

This indicator reports the percent of the population living in census tracts designated as food deserts. A food desert is defined as a low-income census tract where a substantial number or share of residents has low access to a supermarket or large grocery store. This indicator is relevant because it highlights populations and geographies facing food insecurity. In Lowndes County, 18.68% of the population or 20,405 live in a food desert. There is strong evidence that residing in a food desert is correlated with a high prevalence of overweight, obesity, and premature death (The Journal of Rural Health, 2011). There are also consistent findings that people living in low-income neighborhoods, minority neighborhoods, and rural communities face much greater challenges finding healthy food, especially those who lack good transportation options to reach full-service grocery stores (Policy Link, 2010).

Table 24: Percent of the population living in census tracts designated as food deserts in Lowndes County

Region	Percent
US	23.61%
Georgia	31.49%
Lowndes County	18.68%

Data Source: US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas. 2010. Source geography: Tract

Note: This indicator is compared with the state average.

The logic in including this measure as proxy data is that access to healthy foods like fruit and vegetables are a necessary predecessor to consuming fruits and vegetables. One of the project's long term outcomes is to increase the availability of fruits and vegetables in priority communities and thereby decrease the percent of the population with low access to food. This project's activities include facilitating partnerships between local Valdosta organizations to increase access to healthy food to support children's physical development, as well as access to books to support children's brain development. While the intervention does not aim to build supermarkets or grocery stores, it does aim to help families with children 0-5 years' access healthy food. These activities will be reported in subsequent health profiles.

Figure 18: Percent Population with no Leisure Time Physical Activity in Lowndes County



■ Lowndes County, GA (28.9%)
■ Georgia (24.5%)
■ United States (22.6%)

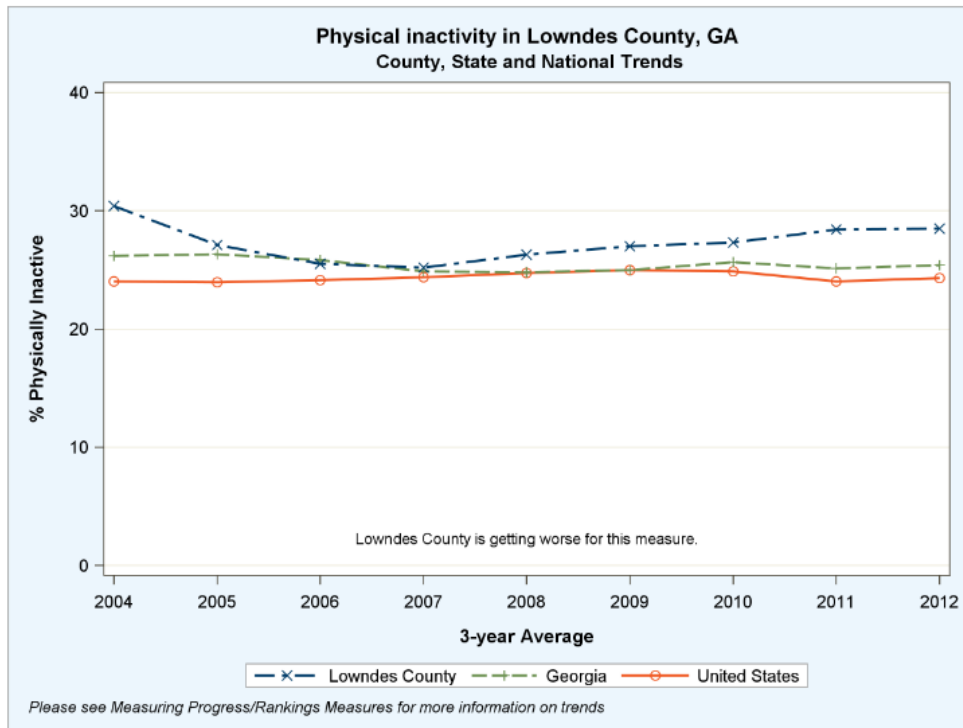
Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2012. Source geography: County

Figure 18 shows physical activity data that further illustrates Valdosta, Lowndes's baseline measures for the elements of this LHI: Nutrition, Physical Activity and Obesity. For Lowndes County, 28.9% of the adult population has no leisure time for physical activity. The project aims to increase the amount of developmentally appropriate physical activity of children 0-5 years. The measure is for adults but the underlying assumption is that increasing the amount of physical activity for adults with children 0-5 years will also improve the amount for these children. The expectation of the project is to increase the amount of physical activity for children 0-5 years through improved access and increased activity. It is also expected that the percentage of adults reporting no

leisure time physical activity will decrease.

Figure 19 presents the three-year average for Lowndes County shows that the county has been getting worse for this measure for this period of time. The expectation is that over time the measure will improve.

Figure 19: Three-year average for physical inactivity in Lowndes County, GA



Source: Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data, 2012.

Priority Community Surveys

The following survey data on access to fruit and vegetable, access to spaces for physical activity, and the amount of structured (led by an adult) and unstructured (free play physical activity) will also be collected from Valdosta community members and included in updates to this profile.

Figure 20: Baseline nutrition and physical activity data to be collected from survey of Valdosta

Q2. In my neighborhood, it is easy to buy fresh fruits and vegetables.

Q4. Do children 0-5 years in your care have access to indoor and outdoor areas that are safe for physical activity?

Q5. Over the past 7 days, how many days did the children 0-5 years in your care participate in physical exercises led by an adult?

Q6. Over the past 7 days, how many days did the children 0-5 years in your care participate in physical exercises not led by an adult?

LHI 2: High School Graduation (Social Determinants of Health)

The measure selected for this project for this LHI are students who graduate with a regular diploma 4 years after starting 9th grade. The baseline for Healthy People 2020 for the US was measured in the 2010–2011 school year at 79% of students attending public schools graduated with a regular diploma. The target for 2020 is 87%. Table 25 shows that in the 2014-2015 school year Valdosta had a 78% graduation rate and when broken down by race and ethnicity Black students had an even lower graduation rate at 74%, 16 percentile point below the White students' graduation rate for that year.

In the long term, this project aims to increase high school graduation rates. The children impacted by this that project are currently 0-5 years old and will probably not graduate high school before 2028 so the updates in this profile will not show the impact of the project within the next five years.

Table 25: Four-Year graduation rate by race, ethnicity, and English-Learners in Lowndes County and City of Valdosta, 2015

Region	Overall	American Indian/ Alaskan Native	Asian/ Pacific Islander	Hispanic	Black/ African American	White	Multiracial	English Learners
Georgia	79%	73.6%	88%	72%	75%	80%	No data	56%
Lowndes County	87%	Too Few Students	Too Few Students	88%	81%	89%	83.333	Too Few Students
City of Valdosta	78%	Too Few Students	Too Few Students	Too Few Students	74%	90%	Too Few Students	Too Few Students

Source: Office of Student Achievement, 2015

Note: *Too few students – any data for less than 10 students are not reported

Other Baseline Measures

Because the children directly impacted by this project will not graduate until 2028, other data is required to understand the City of Valdosta baseline measures for the Social Determinants of Health and to track the impact of this project in the community.

This project supports early brain development and language acquisition through language nutrition, frequently talking with babies and practicing “serve and return.” There is increasing evidence that language nutrition contributes to children achieving reading proficiency at third grade which then contributes to students graduating high school.

Students in Georgia take end-of-grade assessments from the third to eighth grade, including an assessment in English Language Arts (ELA). ELA assessments include reading, writing, speaking and listening, and language. ELA assessments can help measure whether students are reading proficiently at

grade level. The achievement levels for the assessments are: Beginning Learners, Developing Learners, Proficient Learners, and Distinguished Learners. Beginning and Developing Learners have not demonstrated or have partially demonstrated proficiency in the knowledge and skills for their grade level and will need further academic support in the next grade level and to be on track for college and career readiness. Proficient and Distinguished Learners have demonstrated proficiency at the knowledge and skills for their level of course, are prepared for next grade level, and are on track for college and career readiness.

The data in Table 26 shows the percentage of third graders in the 2014-2015 school year that are Proficient and Distinguished Learners for the ELA exam, and therefore are reading proficiently. A higher percent of Black and African American third graders is proficient in Lowndes County (31.33%) compared to Georgia as a whole (24.25%), but only 18.13% of Black and African American third graders in Valdosta were proficient in 2014-2015. White and Hispanic students were also proficient at a higher rate in Valdosta as compared to Georgia, but a lower percent as compared to Lowndes County. The one subgroup that outperformed Georgia and Lowndes County at the Valdosta City level were Limited English Proficient students with 40% categorized as proficient or distinguished learners.

This project aims to increase the percentage of students that are proficient at 3rd grade reading level and will be assessed as proficient in the ELA exam. This project expects to increase the number of students who are assessed as proficient and distinguished learners.

Table 26: Proficient and distinguished learners for the 3rd grade English Language Arts by race, ethnicity and English proficiency in Lowndes County and City of Valdosta, 2014-2015 school year

	Georgia	Lowndes County	Valdosta Schools
All Students	36.92%	38%	25.30%
American Indian/Alaskan Native*	40.25%		
Asian*	67.28%		
Black or African American	24.25%	31.33%	18.13%
Native Hawaiian or Other Pacific Islander*	40.02%		
White	50.09%	57.82%	53.40%
Multiracial	42.63%	64.86%	40.00%
Hispanic	29.23%	48.44%	38.10%
Limited English Proficient	16.39%	36.67%	40.00%
Not Limited English Proficient	39.76%	52.53%	24.84%

Source: Governor's Office of Student Achievement, 2016

Note: *no data available

Baseline Data to be collected from Survey

The following survey data on access to books, languages spoken to children 0-5 and the activities of the day which include conversation to children will also be collected from Valdosta community members and included in updates to this profile.

Figure 21: *Baseline social determinants of health data to be collected from survey of Valdosta*

Q7. In your neighborhood, are there places that you can access books for children 0-5 years?

Q8. Do you speak language other than (or in addition to) English to children in your care?

Q9. At what activities of the day do you engage children in a conversation?

Next Steps

The Community Listening Sessions are scheduled for June 2016 and the participants from the priority communities will be surveyed and their responses will be added to this profile. This Health Disparities Profile will serve as baseline measure for the Food and Language Nutrition Project and will be updated periodically to track the progress of the project.

Georgia is also exploring other data sources with Georgia Department of Early Care and Learning, local school districts, and local partners in order more fully understand the priority communities and identify measures that will assist in tracking the project within the timeline of the grant. We are working with DECAL to identify nutrition and physical activity program data from their tiered improvement Quality Rated System for early child care education setting as well as looking into the instruments that they have used for past wellness grants. We are working with local school districts to gather Kindergarten Assessment data to measure whether students are on track to reading proficiency after their first year of school. Other potential data sources include adding assessment questions the required health assessments to newly arrived refugees entering DeKalb County and surveying the refugee communities that access services at the Friends of Refugees Center.

The next steps after the Community Listening Sessions include sharing the profile with priority communities to promote awareness around health disparities and food and language nutrition, implementing trainings in early child care settings that integrate the feedback and information from the listening sessions, and facilitating relationships with newly identified local partners to increase access to healthy food, safe physical activity spaces, and books.

The table on the next page shows the expected results from the measures included in this profile.

Table 27: Health Disparities Profile Measures, Priority Community Baseline, and Expected Results

Leading Health Topic	Leading Health Indicator or Proxy	Clarkston, DeKalb	Dalton, Whitfield	Valdosta, Lowndes	Expected results
Nutrition, Physical Activity and Obesity	NWS-15.1 Mean daily intake of total vegetables (age adjusted, cup equivalents per 1,000 calories, 2+ years)	NA	NA	NA	↑
	Percent Adults with Inadequate Fruit/Vegetable Consumption	70.9%	79.3%	74.8	↓
	Percent of 3rd Graders in the Healthy Fitness Zone for Body Mass Index	Boys: 69.05% Girls: 70.74%	Boys: 57.41% Girls: 64.81%	Boys: 65.94% Girls: 62.11%	↑
	Survey data to be collected: <i>Q3. In the last 7 days, number of days that children 0-5 were served meals that include fruits and vegetables.</i>				↑
	Percent of the population living in census tracts designated as food deserts	25.05%	31.26%	18.68%	↓
	Percent Population with no Leisure Time Physical Activity	21.4%	31.4%	28.9%	↓
	Survey data to be collected: <i>Q2. In my neighborhood, it is easy to buy fresh fruits and vegetables.</i>				↑
	<i>Q4. Do children 0-5 years in your care have access to indoor and outdoor areas that are safe for physical activity?</i>				↑
	<i>Q5. Over the past 7 days, how many days did the children 0-5 years in your care participate in physical exercises led by an adult?</i>				↑
	<i>Q6. Over the past 7 days, how many days did the children 0-5 years in your care participate in physical exercises not led by an adult?</i>				↑
Social Determinants of Health	High School Graduation Rate	63%	81%	78%	↑
	Proficient and Distinguished Learners for the 3rd Grade English Language Arts	15.60%/14.18%	23.70%	25.30%	↑
	Survey data to be collected: <i>Q7. In your neighborhood, are there places that you can access books for children 0-5 years?</i>				↑
	<i>Q8. Do you speak language other than (or in addition to) English to children in your care?</i>				↑
	<i>Q9. At what times of the day do you engage children in a conversation?</i>				↑

Data Sources and Methodology

What is Missing

There are no reliable small area estimates for the total fruit vegetable intake for persons aged 2 years and older. This data is currently only available at the state level through Behavioral Risk Factor Surveillance System (BRFSS). The state level data by race and ethnicity is included and this profile uses proxy data to measure the communities' baseline. The number of the measures for this LHI are on the county level for the target communities and are not broken down by race and ethnicity of for children 0-5.

To supplement the current data, this project will collect survey data at community listening sessions to understand the communities' baseline and collect the same information from early child care providers and community members throughout the lifetime of the project. The project will also conduct the Child Development Inventory at participating centers to assess current state of awareness, attitudes and behaviors, and to assess current state of language acquisition of children in the 0-3 population.

Georgia is continuing to work with partners to identify other data sources that will help understand how the target communities are doing in terms of the LHIs. The details are included in the Next Steps section.

This health disparities profile focuses on the Leading Health Indicators and does not document the communities' assets and strengths. This profile is just a part of the picture in each of the target communities and should not be used to stereotype or make sweeping generalizations of groups of people.

Data Sources

The information is a compilation of data and analyses that may be used to provide a clearer picture of the health disparities in fruit and vegetable consumption and high school graduation in Clarkston, DeKalb County, Dalton, Whitfield County and Valdosta, Lowndes County.

Fruit and vegetable consumption proxy data is from data sources provided by the CDC, USDA, Georgia Department of Education. Student fitness assessment data was compiled through the Georgia annual fitness assessment through the Georgia Department of Education.

High school graduation and third grade proficiency data came from the Governor's Office of Student Achievement (GOSA). GOSA provides research support and data analysis on education programs in Georgia to inform the Governor's policy, budget, and legislative efforts.

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References

- Ahern M, Brown C, Dukas S. (2011) A national study of the association between food environments and county-level health outcomes. *The Journal of Rural Health*, 27 :367-379.
- American Immigration Council. (2015) New Americans in Georgia: The Political and Economic Power of Immigrants, Latinos, and Asians in the Peach State. Retrieved from <http://www.immigrationpolicy.org/just-facts/new-americans-georgia> on June 1, 2016.
- Hiskey, M. (2010 June 25). Melting pot stirs "We Are the World Cup" in Clarkston. *Atlanta Journal-Constitution*. Available online at <http://www.ajc.com/news/sports/melting-pot-stirs-we-are-the-world-cup-in-clarkston/nQg8S/>.
- Valencia, N, Tripp L. (2011 December 12). After Latino boom, Georgia town's population shifts again. CNN. Available online at <http://inamerica.blogs.cnn.com/2011/12/12/dalton-georgias-latino-face-is-changing-again/>.
- Centers for Disease Control and Prevention (CDC). (2012). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.
- Centers for Disease Control and Prevention (CDC). (2015). Division of Population Health, BRFSS Prevalence & Trends Data [online].
- Centers for Disease Control and Prevention (CDC). (2012). National Center for Chronic Disease Prevention and Health Promotion.
- City of Clarkston. (2012) About Clarkston. Available online at <http://clarkstonga.gov/about-clarkston/about-clarkston.html>.
- U.S. Department of Education. (2015 February). EDFacts/Consolidated State Performance Report, SY 2012–13. Available online at <http://www2.ed.gov>.
- Georgia Department of Public Health. (2014). Georgia Behavioral Risk Factor Surveillance System (BRFSS). Adults who consumed fruits less than one time per day by race and ethnicity in Georgia, 2013.
- Georgia Department of Public Health. (2014). Georgia Behavioral Risk Factor Surveillance System (BRFSS). Adults who consumed vegetables less than one time per day by race and ethnicity in Georgia, 2013.
- Georgia Department of Public Health. (2014). Age-specific rate of obesity/overweight-related hospitalizations, 2-19 years of age, Georgia, by race, 1990-2013. Office of Health Indicators for Planning (OHIP).

Georgia Department of Education. (2016). Georgia Annual Fitness Assessment Program Data. Available online at <http://gosa.georgia.gov/downloadable-data>.

Governor's Office of Student Achievement. (2015). Graduation Rate (4-Year Cohort). Available online at <http://gosa.georgia.gov/downloadable-data>.

Olsson, T. (2009 September 25). Latino Immigration. Georgia Encyclopedia, University of Georgia. Available online at <http://www.georgiaencyclopedia.org/articles/history-archaeology/latino-immigration>.

Policy Link. (2010). The Grocery Gap: Who Has Access to Healthy Food and Why It Matters. Available online at http://thefoodtrust.org/uploads/media_items/grocerygap.original.pdf

U.S. Census Bureau. (2008-2014). American Community Survey.

U.S. Census Bureau. (2010-2014). American Community Survey 5-Year Estimates

US Census Bureau. (2010-2014) American Community Survey. Source geography: Tract.

U.S. Census Bureau (2010). Census Briefs: The Black Population, 2010. Available online at <https://www.census.gov/prod/cen2010/briefs/c2010br-06.pdf>.

U.S. Census Bureau. (2014) Population Estimates Program (PEP).

U.S. Department of Agriculture. (2010). Food Access Research Atlas. Source geography: Tract

U.S. Department of Education. (2015). National Center for Education Statistics, National Assessment of Educational Progress (NAEP). Available online at <http://nces.ed.gov/nationsreportcard/>.